

CLAIMS

1. Process for recycling an article based on at least one vinyl chloride or vinylidene chloride  
5 polymer, according to which:
  - (a) the article is cut up into fragments with a mean size of 1 cm to 50 cm in the case where it would exceed these sizes;
  - 10 (b) the article fragments are brought into contact with an azeotropic or quasiazeotropic mixture of water and of a solvent capable of dissolving the polymer, at a temperature of at least 120°C;
  - 15 (c) the polymer dissolved in the solvent is precipitated by a reduction in pressure and by injection of steam into the solution thus obtained, which additionally results in the entrainment of the solvent-water azeotrope and thus leaves a mixture remaining which is essentially composed of water and of solid polymer  
20 particles;
  - (d) the polymer particles are collected.
2. Process according to Claim 1, in which the dissolution stage (b) is carried out in a container in which is positioned a perforated rotary drum.
- 25 3. Process according to either of the preceding claims, in which the solvent is chosen from methyl ethyl ketone (MEK), methyl isobutyl ketone and tetrahydrofuran.
4. Process according to one of the preceding  
30 claims, in which the dissolution stage (b) is carried out under a pressure of 4 to 10 bar.
5. Process according to one of the preceding claims, in which, during the dissolution stage (b), the amount of article does not exceed 200 g per litre of  
35 solvent.
6. Process according to one of the preceding claims, in which, before precipitating the dissolved polymer, the possible undissolved constituents are removed at a temperature sufficient to prevent the

precipitation of the polymer.

7. Process according to one of the preceding claims, in which the precipitation (c) of the polymer is carried out by the joint injection of steam and of liquid water.
8. Process according to one of the preceding claims, in which the solvent/water liquid fraction collected on conclusion of the precipitation stage (c) is separated by settling into:
- a first fraction with an azeotropic or quasi-azeotropic composition, which is reused in the dissolution stage (b);
  - a second fraction predominantly of water, which is reused in the precipitation stage (c).
9. Process according to one of the preceding claims, in which the article is a sheet.